

What the

Community Solar Customer Wants

Identifying the right target audiences for community solar -
and the marketing strategies that will win them over



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It's a fact: Americans love solar

Here at Shelton Group, our Pulse™ research has suggested for years that if only solar energy were more attainable, Americans would have it for breakfast, lunch and dinner. They'd put a solar cell in every sunny corner, powering everything from their cars to their HVAC systems, feeling confident, in control and free from energy dependence. They absolutely adore the idea of clean solar energy – even if their practical knowledge is admittedly limited (e.g., important stuff like how it works and what it costs).

But even though the cost of solar has dropped dramatically over the last several years, many Americans still can't afford a traditional rooftop solar array, and many more can't even consider it because they're renters, don't control their rooftops or don't have the proper sun exposure to make solar realistic. (And some just don't like it for aesthetic reasons.)

Cue the solar-powered spotlight:
**here's where community solar makes
an entrance.**

Community solar arrays – which can be leased or subscribed to by anyone – can fill the gap for the large number of Americans who can't or won't choose rooftop installations. In other words, they're the missing piece of the puzzle for making solar participation possible for everyone, even though there's still a financial barrier that varies depending on the type of program chosen.

Fourteen states and the District of Columbia have passed shared renewable laws that support community solar deployment; 28 states already have arrays online. And interest is surprisingly strong in some places. When Colorado's Xcel Energy launched its first community solar array in 2012, the entire available subscription sold out in less than 30 minutes.

But once eager early adopters have jumped on board, what's next? **How do we take the message to the rest of America and make solar a reality for the masses?**

The answer lies in smart packaging, pricing and messaging – all of which depend on identifying the ideal community solar target and figuring out what makes that audience tick. Now, in partnership with the Smart Electric Power Alliance (SEPA) and supported by the U.S. Department of Energy SunShot Initiative, we've conducted two new surveys of American energy customers – 2,001 residential consumers and 252 business decision makers – that answer your burning questions about America's next wave of solar adopters.

Methodology

- *Sample of 2,001 U.S. residential utility customers from a national online consumer panel*
- *Fielded December 11-18, 2015*
- *A mix of multiple choice, fixed response, Likert scale and discrete choice (conjoint) analysis questions*
- *Stratified random sample included a mix of genders, ages, home ownership, ethnicities/races, education, incomes and geography*
- *Margin of error +/-2.2% at a 95% confidence level*

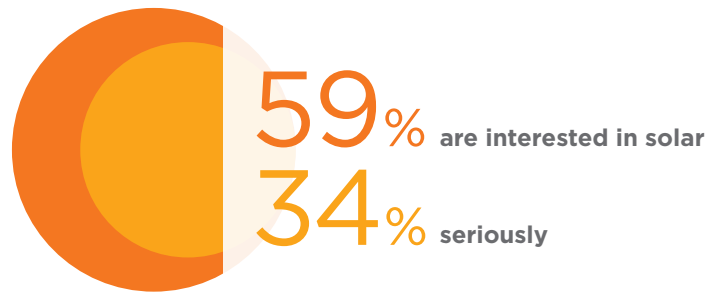
Surveying the American Consumer

The American Consumer
Weighs In on Solar – and
Community Solar

When it comes to solar, Americans are still mostly in the dark

As part of a community solar project funded by the Solar Market Pathways grant from the U.S. Department of Energy, SEPA and Shelton Group polled American consumers and businesses to identify the audiences for community solar and find out what they want most from a community solar program. We'll take a look at the consumer side first.

Please note that these surveys provide a national perspective on community solar. We know that local energy markets vary dramatically, and we encourage anyone developing a community solar program to research their local targets accordingly.

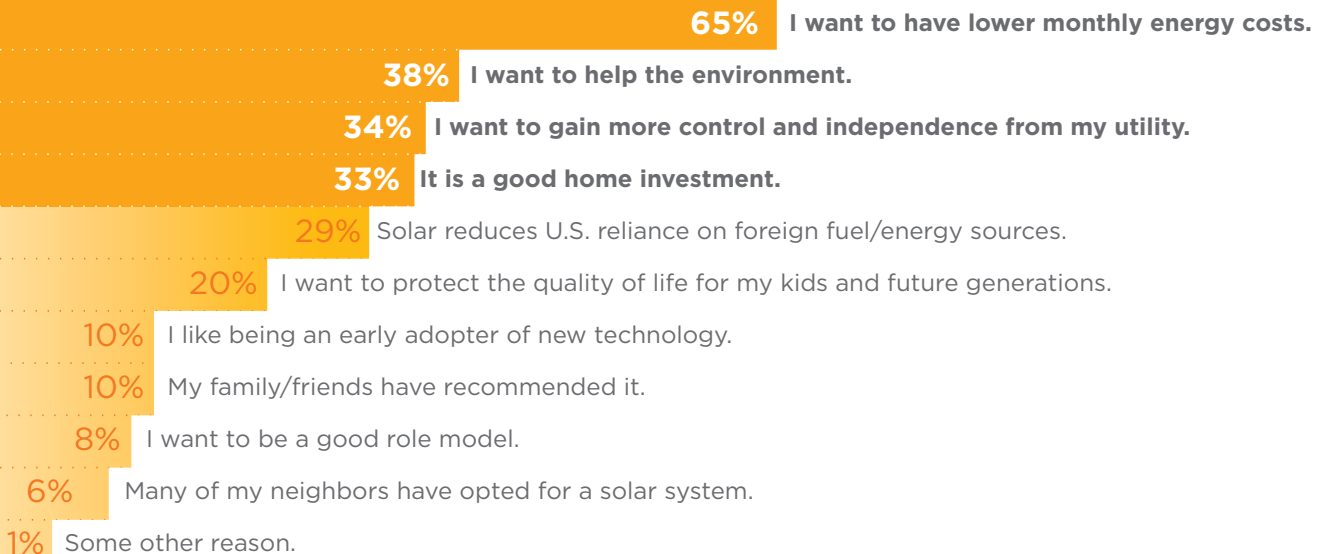


In this survey, as in Shelton Group's previous Pulse research, consumers showed a strong affinity for solar – but not a lot of knowledge about it.

Before they were given any supporting information, **59% claimed to be interested in using solar electricity at home, and 34% claimed to be “seriously considering” their solar options.**

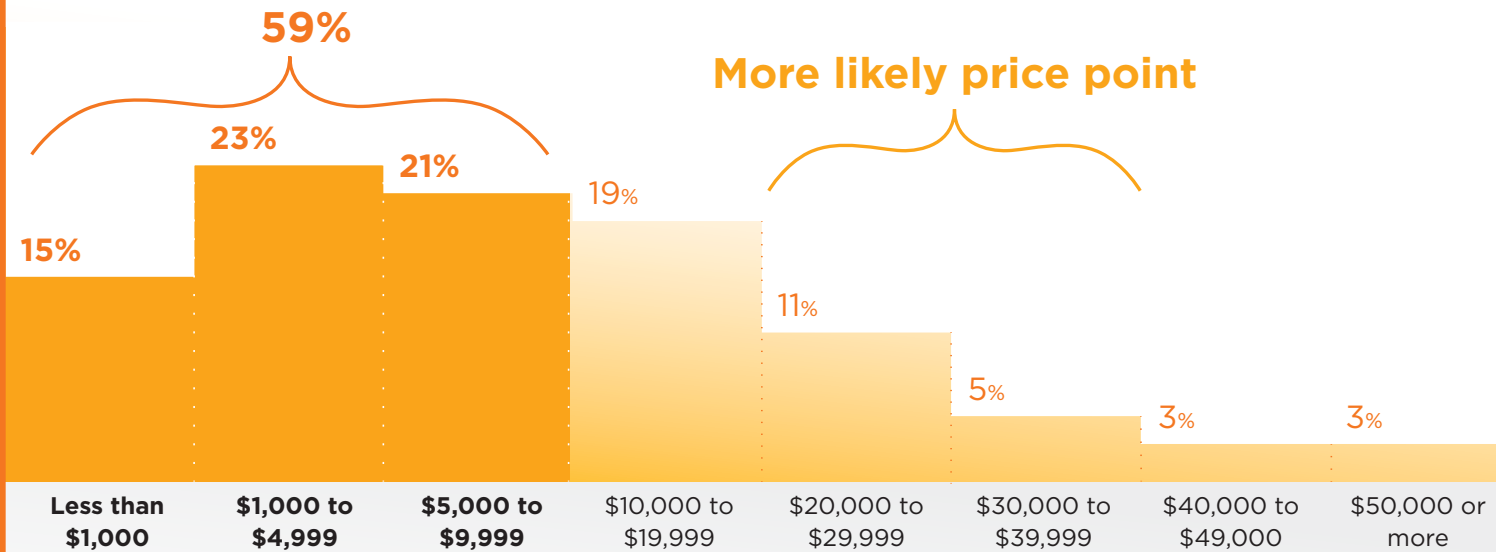
Why? Because they want lower energy costs, less impact on the environment and independence from their utilities – in that order.

Which of the following reasons best describe why you are interested in using solar electricity or already use solar?

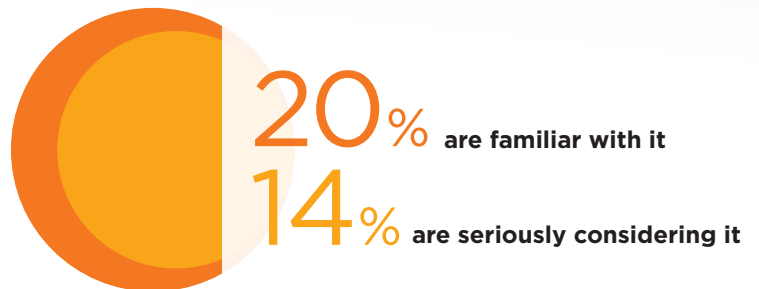


But consumers significantly underestimate the cost – 59% believe a 7–8 kW rooftop system will cost less than \$10,000 (although costs vary widely across the United States, systems this size can easily be triple this amount).

The average U.S. electric customer would need a 7–8 kW system to cover all of their monthly electricity usage. How much would you expect a 7–8 kW system to cost?



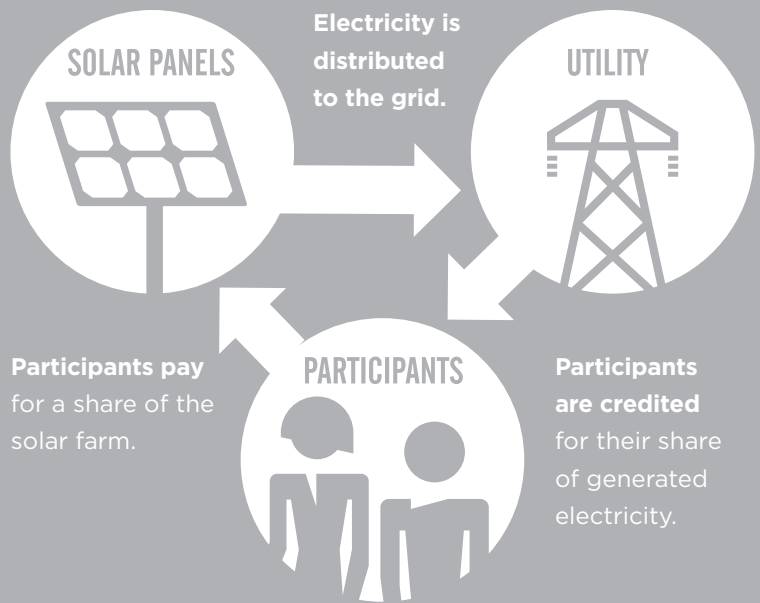
And very few have even heard of community solar at all: in our survey, only 20% of consumers said they were familiar with it, and only 14% were seriously considering it.



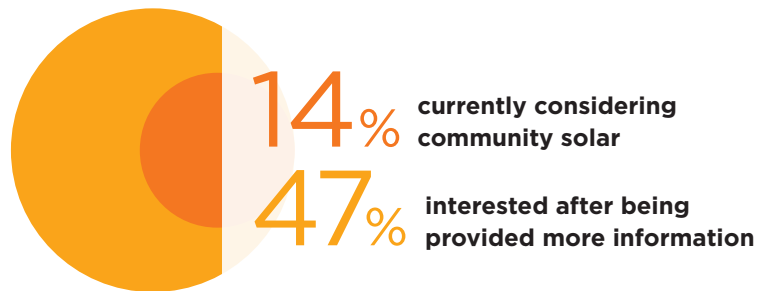
So we shed a little light on the subject

We offered respondents a clear description of community solar to see if education affected interest levels.

Respondents were given this information and illustration:

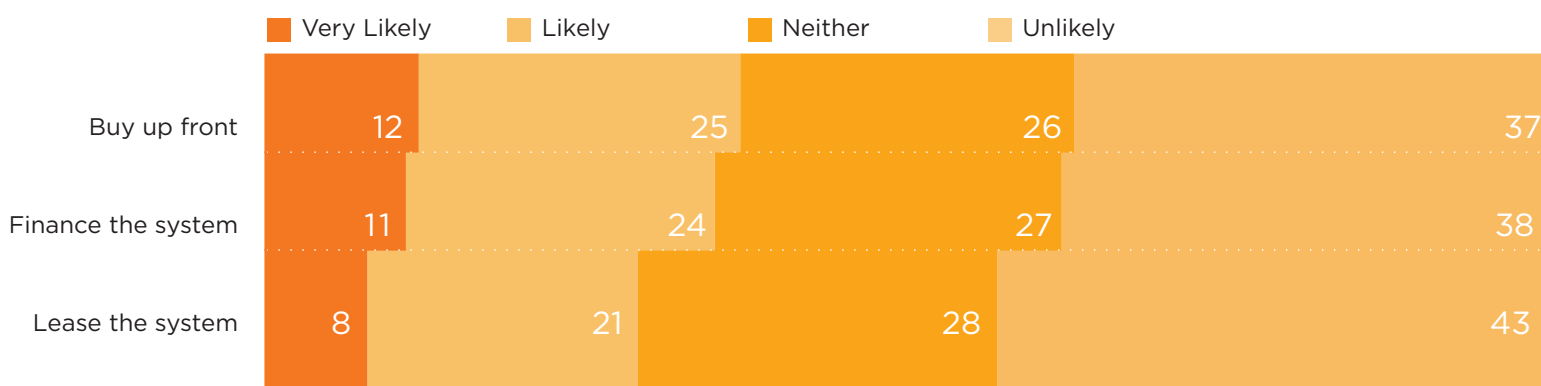


The results were striking. Despite the fact that only 14% claimed to be currently considering community solar, 47% said they were interested after being provided more information.



We also showed supporting information about the cost (along with finance/lease options) of a rooftop system, which increased interest in rooftop as well.

A 5-6 kW solar PV system would generate approximately 85% of the average home's electricity needs. It would cost roughly \$20,000. How likely would you be to purchase or lease a solar PV system in one of the following ways in the next five years?

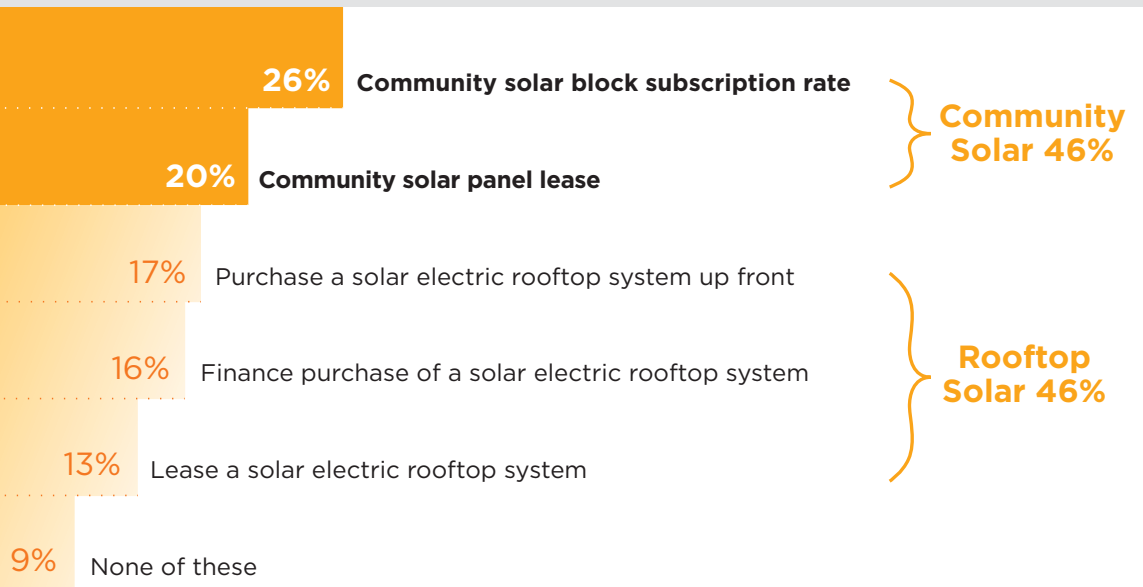




Finally, we showed detailed information about community solar panel lease and block subscription options (detailed descriptions of these models appear on page 11, and we'll dig into those results in the next part of the report). We then presented respondents with the entire available range of solar ownership/participation options and asked which they'd be most likely to choose. The single most popular option was a community solar block subscription program – but note that preference split evenly overall between community and rooftop options.

Why? Because there's a natural audience for both models.

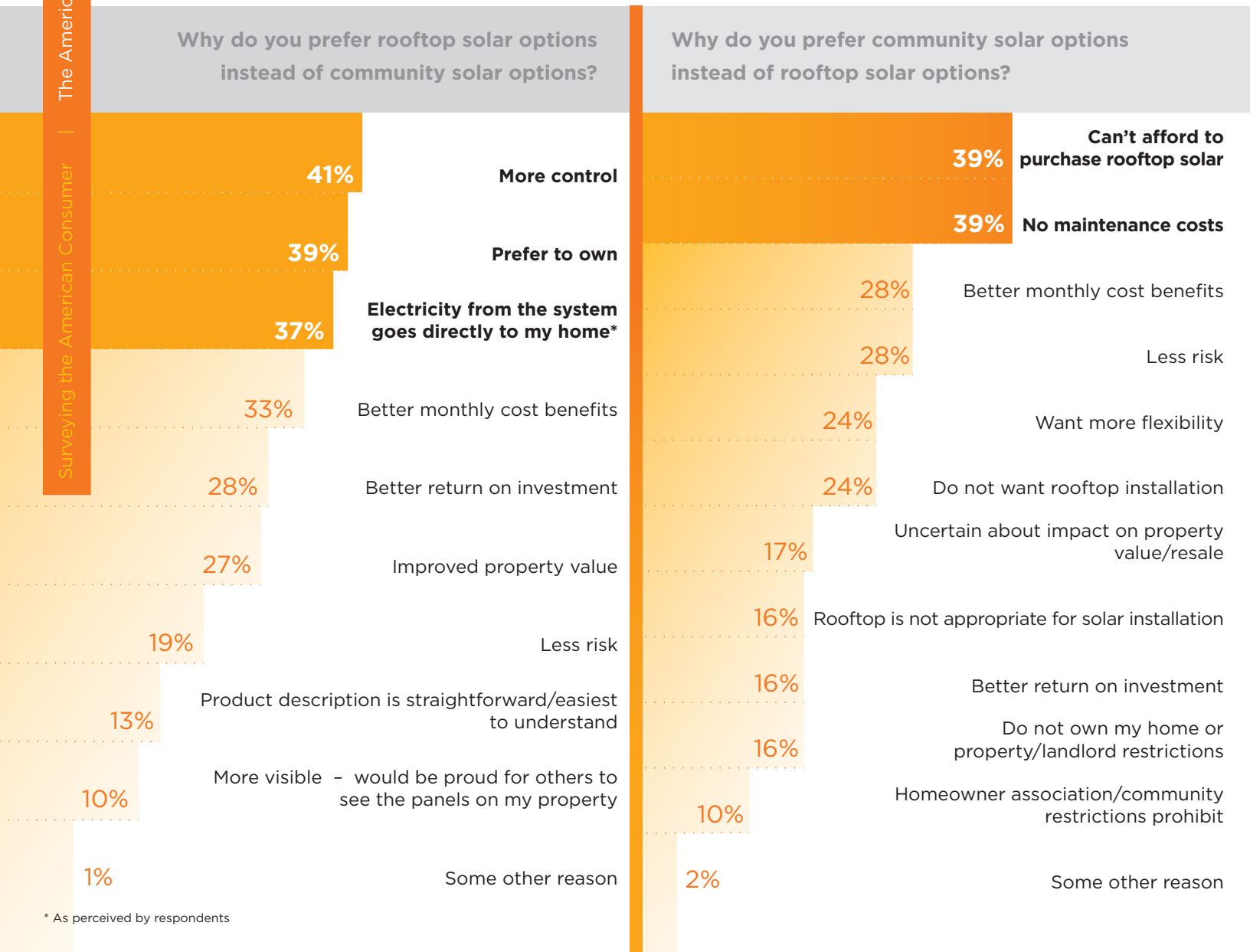
Please select which you would be most likely to consider within the next five years.



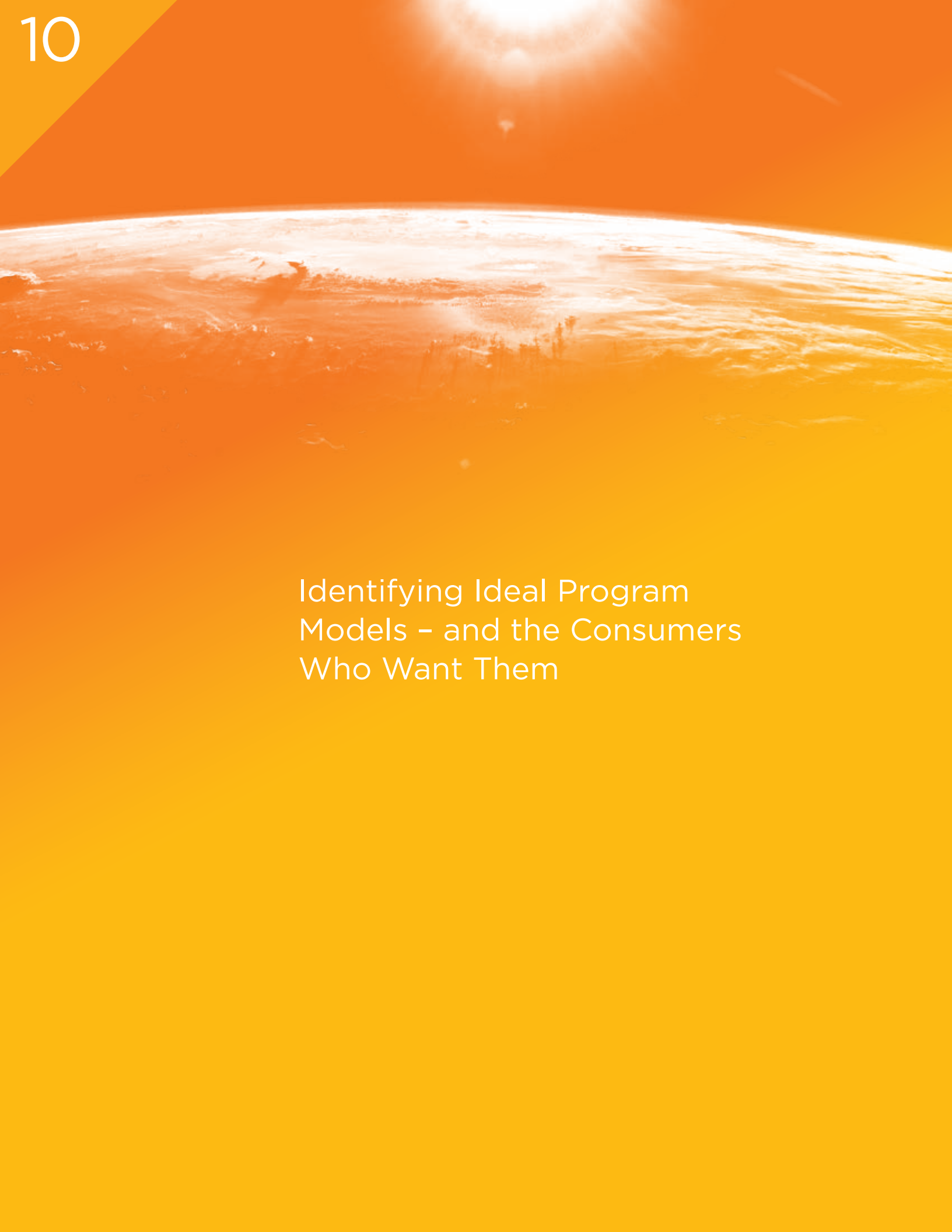
Rooftop and community solar are both necessary to satisfy the whole market

When we asked respondents why they preferred rooftop or community solar, you can see that for those who favored rooftop, the top answers reflected a desire for control and ownership.

Community solar preference, on the other hand, appears to be driven more by price sensitivity.



* As perceived by respondents



Identifying Ideal Program
Models - and the Consumers
Who Want Them

They responded favorably to both:

37%

said they'd be likely or very likely to participate in a lease program

38%

said they'd be likely or very likely to participate in a block subscription program

In order to home in on the primary targets for community solar programs and the models that would persuade them to participate, we first presented respondents with information about the two most commonly available program options: one based on a lease and the other based on a subscription.

Respondents saw these descriptions:

Residential Panel Lease Description

SOLAR PANEL LEASE

As a participant in a community solar panel lease program, you lease individual solar panels from a large solar array in your community for 25 years. Your monthly electric bill will indicate how much electricity your panels generate each month and reflect a credit for that electricity.

Your cost: \$695 per panel. This is an up-front, one-time payment.

Your bill credit: About \$45 per panel per year (\$3.75 per panel per month).

Example: To cover 85% of the \$111 monthly electric bill for the average U.S. home, you would need to lease about 25 panels. Here's how the numbers work out:

Number of panels leased: 25

Up-front cost: \$17,375

Average monthly electric bill: \$111*

Average monthly solar bill credit: \$94

Average monthly bill after credit: \$17

*Note: This is the average in the U.S. Yours may be higher or lower.

Saving an average of \$94 per month on your electric bill means that after about 15 years, you will have recovered the up-front costs of leasing your panels. And you'll continue to receive the monthly credit for the electricity your panels generate until your lease is up – about 10 more years – providing additional monthly solar credits of more than \$11,000.

Residential Subscription Rate Description

SOLAR SUBSCRIPTION RATE

In a community solar subscription rate program, you can subscribe to 100 kWh “blocks” of solar energy produced from a community solar array. The rate you pay for the blocks of electricity will be two cents higher per kWh than you pay now, but you lock in that rate – it will never increase – for the duration of your subscription (you can choose a duration of up to 25 years).

Example: For a subscription to cover about 85% of the average U.S. home's energy use (about 680 kWh/\$94.35 per month), here's how the numbers work out:

Subscribed blocks: 6

Current rate per kWh: \$0.13*

Locked-in rate for subscribed blocks: \$0.15

Approximate increase in electric bill: \$14/month

*Note: This is the average in the U.S. Yours may be higher or lower.

The benefit of this model is that the average rate for U.S. residential electricity has risen by about 7% since 2010. If that upward trend continues (as many predict it will), your locked-in rate means you'll be paying less than the conventional rate within a few years.

Note that you will be charged the conventional rate for any electricity use that is not covered by your subscription. In the example above, that would be any usage over 680 kWh. You are also free to drop out of the program at any time, at no cost.

To determine the specific models that appealed to specific audiences, we then offered respondents the chance to choose from both lease and subscription models with randomly generated attributes.

The optimal lease program

A typical community solar panel lease program in the current marketplace looks something like this:

- 20+ year term
- \$595+ per panel
- No on-bill financing
- Limited ownership – you don't "own" the power the panels produce
- Location based on efficiency/lowest cost to utility
- Most capacity generated by non-utility-owned arrays
- No real-time access to production information

But what would the optimal model be? Our survey offered consumers the chance to choose among different randomly generated lease models that varied by program sponsor (utilities, governments, nonprofits, etc.), location relative to community, personal ownership stake, lease term, panel price, amount of credit on the electric bill and access to energy production information (via website, app or none at all).

Based on conjoint analysis of their choices, this is the model that consumers prefer instead:

- 5- to 10-year term
- \$395 per panel
- On-bill financing
- Ownership of the power the panels produce – or, even better, ownership of the panels
- Location in the community or within 15 minutes' driving distance
- Utility sponsorship or utility partnership with a solar company
- Real-time panel production info via web portal or smartphone app

Here are the broad takeaways we gleaned from their responses:

- **Consumers, unsurprisingly, prefer lower costs.** The lowest panel price offered, \$395, influenced consumer choice the most of all attributes tested – and when the price was raised to \$495 per panel, interest plunged 57%, from 49.6% to 21.3%.
- **They want shorter lease terms, too.** Although conventional wisdom has held that customers would prefer longer lease terms to keep their costs lower, we found that they actually preferred something more like a car lease: short, with a low monthly fee. Five-year terms (29.5%) and ten-year terms (20.3%) were most popular.
- **Lease programs benefit from offering an ownership stake.** Respondents showed a significant preference (60%) for owning a piece of the array.
- **Consumers want a connection to their purchase.** Seventy-five percent of the time, consumers chose a program that let them know how much power the array was producing, via either website portal (41%) or smartphone app (34%).

Meet the community solar lease target

Shelton Segment*: Concerned Parents

- *Aged 25-44*
- *Suburban (72% are homeowners; 28% are renters)*
- *White-collar (they have bachelor's degrees and make \$50,000 a year or more, but they're also often homemakers)*
- *More likely than average to live in the Northeast*

What do they care about most?

- **Saving money.** This is their top driver, although it's actually less of a concern for them than for the average American.
- **The environment.** They're concerned about the impact of their energy use on the planet.
- **Being role models for their children.** They want to preserve the environment for future generations.
- **Time management.** They're busy parents and have many competing priorities.



Concerned Parents want to be responsible, they frown on waste, and they worry about the world their children will inherit.

Community solar appeals to this group because they want to make a positive impact on the environment, but they're concerned about inconsistent power output of rooftop systems. As a rule, they're looking for only partial coverage of their electricity bill via a lease program (59% want it to cover half their bill or less). And they want their community solar panels to be located nearby and be highly visible – presumably so they can show their kids that they're making a difference.

The Messaging That Works

- **Community solar is good for the planet.** This is an environment-minded audience driven to protect the world their kids will inherit.
- **Take your kids to see your solar array!** Promote community solar as a family activity with a positive educational angle.
- **Avoid hassle.** The panel lease target is busy and doesn't want to deal with inconsistent output or maintenance issues.

The optimal block subscription program

A typical community solar block subscription program in the current marketplace looks something like this:

- 2-year term with the option to renew
- \$100 non-refundable deposit or sign-up fee
- \$.03–\$.05 premium kWh rate
- Most capacity generated by non-utility-owned arrays
- Location based on efficiency/lowest cost to utility
- No real-time access to production information

But what do consumers really want? We allowed respondents to choose among randomly generated block subscription models that varied by program sponsor (utilities, governments, nonprofits, etc.), location relative to community, length of participation term, sign-up fee, block price and access to energy production information (via website, app or none at all).

Here's the model we'd recommend based on their preferences:

- A 20+ year term
- No sign-up fee or a \$50 deposit (refundable after 2–5 years' participation)
- \$.01–\$.02 premium kWh rate
- Utility sponsorship or utility partnership with a solar company
- Real-time panel production info via web portal or smartphone app

What did we learn from our respondents?

- **The sign-up fee was the single most important factor driving consumer choice.** (Length of participation term and block price came in second and third, respectively.) Refundable deposits were definitely better than non-refundable, and in the eyes of consumers, there was very little difference between a \$50 and a \$100 refundable deposit (preferred 19% and 17% of the time, respectively). But when we took away the sign-up fee altogether, preference more than doubled (to 44%). What's more, eliminating the fee made consumers significantly more willing to pay the highest subscription rate tested (\$.03 more per kWh than the standard rate), increasing preference for that rate by 38%.
- **Consumers also wanted low rates.** Starting at the baseline of no premium at all, preference dropped by 42% when a \$.01/kWh premium was introduced, and by an additional 40% for a \$.02/kWh premium. There was little further drop-off, however, for \$.03/kWh. Again, willingness to pay a higher subscription rate improved when the sign-up fee was eliminated.
- **They preferred longer terms as a hedge against rate increases.** Once consumers lock in a rate that will likely be lower than standard future rates, they want to keep it as long as possible.
- **Access to information was important.** As they showed earlier in their choice of panel lease programs, consumers really liked the idea of being able to monitor power production via website or smartphone app.
- **Panel location made the least impact on program choice.** But when all other program details were held constant, respondents preferred that the panels be located in their community, as opposed to a 15-minute drive or a 60-minute drive away.

Meet the community solar block subscription target

Shelton Segment*: True Believers

- *Female, aged 45+*
- *Suburban (69% are homeowners; 31% are renters)*
- *Educated (they're more likely than average to have bachelor's or graduate degrees)*
- *Middle class (they tend to make less than \$75,000 a year)*
- *No children at home (they're slightly more likely than average to be retired)*
- *More likely than average to live in the South*

What do they care about most?

- **The environment.** They're highly concerned about their impact on the planet, and believe the government should be doing more to combat climate change.
- **Locking in lower energy costs.** They're attracted to this core principle of block subscription programs.
- **Being responsible,** which includes not wasting energy. They're very engaged on the topic of energy efficiency, and they understand the impact of supply and demand on energy costs. They also get that traditional methods of producing electricity aren't good for the environment, and they feel a sense of duty to do something about it.



True Believers are driven by a desire to preserve the environment and natural resources, and they're the most likely consumer segment to connect the dots between their behavior and the state of the environment.

Like the target audience for lease programs, potential block subscribers are only moderately engaged on home technology, and they're concerned about inconsistent power output of rooftop systems. But unlike potential lease participants, they'd prefer to offset most of their electricity bill (told that four subscription blocks would cover about half the average U.S. electricity bill, 51% said they would purchase five blocks or more).

The Messaging That Works

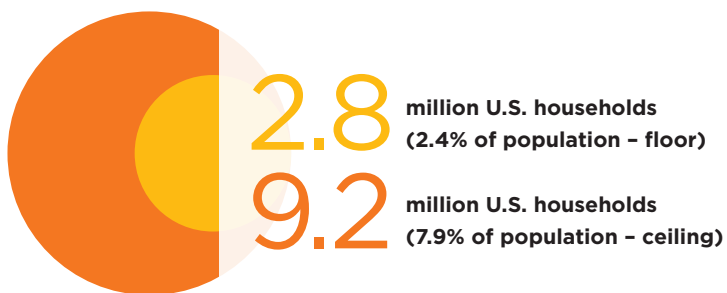
- **Community solar is good for the planet.** Climate change is front and center for the potential block subscription target – don't be afraid to speak directly about it.
- **Community solar is affordable.** This is a price-sensitive audience that needs to hear loud and clear the message about locking in a fixed rate (which could credibly be lower than future rates).
- **You can be part of the solution.** Community solar can give this audience the chance to make a real, measurable difference, maybe even for the first time.

Estimating Market Potential

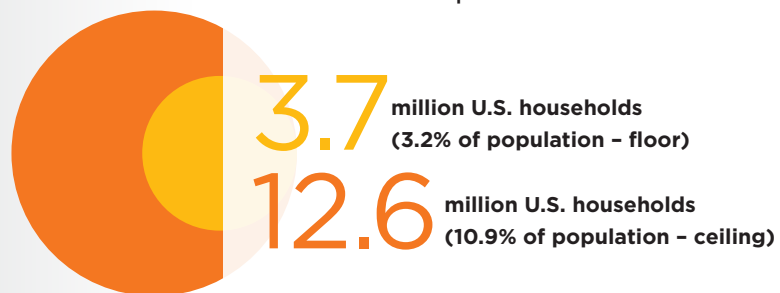
What is the market potential for residential community solar? Based on our survey results, we've calculated the range for possible market penetration for both lease and block subscription programs. (To figure this up, we had folks choose which solar model they preferred, then we calculated how many of them said they were likely or very likely to pursue their preferred option.)

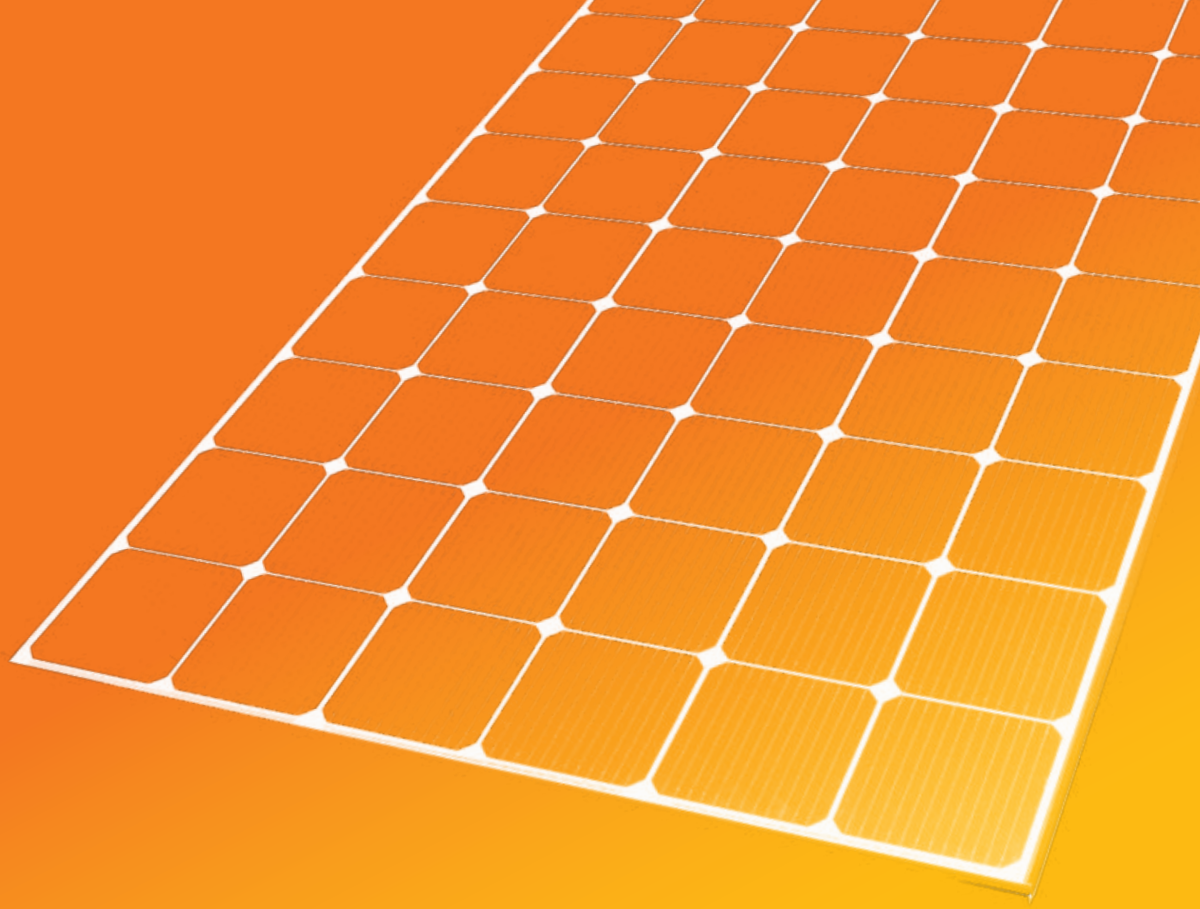
Estimating the Community Solar Panel Lease Market	% Very Likely	% Likely	Total	Households
High - Max Potential (Very likely + likely)	9.6%	30.4%	40%	9.2 million
Medium - Optimistic (½ very likely + ½ likely)	4.8%	15.2%	20%	4.6 million
Low - Realistic (½ very likely + ¼ likely)	4.8%	7.6%	12.4%	2.8 million
Estimating the Community Solar Subscription Rate Market	% Very Likely	% Likely	Total	Households
High - Max Potential (Very likely + likely)	7.9%	33.9%	41.8%	12.6 million
Medium - Optimistic (½ very likely + ½ likely)	3.9%	16.9%	20.8%	6.3 million
Low - Realistic (½ very likely + ¼ likely)	3.9%	8.5%	12.4%	3.7 million

Panel Lease Market



Panel Subscription Market





Marketing Community
Solar to Consumers

Angles that get results

Utilities and solar providers alike know that community solar can fill a significant need in the marketplace, but they're anxious about what might happen. If we build it, will they come?

The answer is yes. But only if you put a significant marketing push in place.

Americans are barely aware that community solar exists, which is by far the biggest hurdle to getting programs subscribed.

But in our survey, when we presented consumers with clear, complete information about how a community solar program works, nearly half of them were interested. You must invest heavily in consumer education for large-scale community solar to reach its potential.

Financing. An offer of zero-down, low-interest financing changed the minds of 27% of consumers who said they weren't interested in a community solar lease.

Visibility. Although this can be a divisive topic, our research showed that many likely community solar participants prefer the array to be visible, and they're actually willing to pay more for that feature.

Terminology. We asked consumers what they thought community solar should be called. "Community shared solar" and "community solar" came out on top, while "solar gardens" was significantly less popular. Also note that we used the terms "panel lease" and "block subscription" for the purposes of this survey, and consumers responded positively, but we're aware that other program descriptors are used in the marketplace, and we recommend further testing to determine the optimal language to use.

Recognition. Those interested in community solar want to be recognized for their contribution (70% said so) - and they aren't asking for much: a window decal was the most popular method of recognition they chose (35%).

Utility sponsorship. Of those interested in community solar, two-thirds wanted the program to be sponsored either by their utility (34%) or a solar firm working in partnership with their utility (33%).

Our marketing recommendations

Offer a robust portfolio of options. There's no advantage in betting either way on community vs. rooftop or lease vs. subscription. If you're committed to renewables, all options should be on the table to appeal to the broadest cross-section of people. This is an especially important point for utilities, who have been reluctant to embrace rooftop. We believe the audiences for rooftop and community solar are different, and if you balk at one approach, you'll likely cede a section of your customer base to outside firms.

Go shorter on community solar panel lease terms – with an eye toward leasing each panel multiple times over its lifespan or transferring the entire solar array to utility ownership after it's fully depreciated. The lease target audience preferred the shortest lease term we showed them – five years – significantly more than any other. Given how much confusion exists in the marketplace and how little consumers understand about solar costs and production, it makes sense that they're reluctant to make long-term commitments. So plan for turnover and try shorter lease terms to attract more community solar buyers.

Rethink pricing and fees. Consumer interest in community solar dwindles at a price point far lower than what's currently being offered in the marketplace – the drop in interest from \$395 to \$495 per panel was dramatic. Potential block subscribers were especially cost-sensitive, preferring no rate premium and no sign-up fee when other program options were held constant. The optimal model for them includes one or the other, but not both; we recommend you remove non-refundable fees for sign-up and offer clear education about how locking in a rate can benefit subscribers over the long term.

Offer panel lease financing. We saw a 40% overall uptick in interest (and 27% of those previously “not interested” changed their minds) when zero-down, low-interest financing was offered.

Consider that site location and information via Web or app may be necessities, not luxuries. For community solar targets, visibility and access to production information are highly attractive and make their participation in solar move from pie-in-the-sky to solidly real. We encourage local market research to determine whether this is true in your area.

Use messaging that resonates with the identified targets. The audiences for both types of community solar models are pro-environment, so be explicit about the impact on climate change and the chance to make a difference. For panel lease targets, a family-oriented message will be successful; for block subscription targets, it's all about becoming part of the solution – in an affordable way.



Methodology

- *Sample of 252 U.S. business energy decision makers from small- to mid-size companies (sample provided by a national business panel provider)*
- *Fielded December 14-18, 2015*
- *A mix of multiple choice, fixed response and Likert scale questions*
- *72% C-suite participants; remainder senior or mid-level managers or energy specialists*
- *Margin of error +/-6.2% at a 95% confidence level*

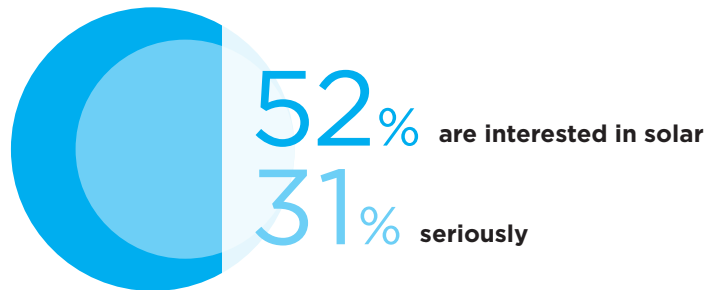
Surveying the American Business Decision Maker Decision Makers Share Their Solar Preferences

Business owners are people, too

For the second part of this study, we polled 252 business owners or managers who make the energy decisions for their companies. To gauge the commercial potential for community solar, we asked a series of questions similar to the ones we asked residential customers, although we did not test specific program elements for this audience.

Business owners are very much like the rest of America in that they share a positive vibe about solar - but limited knowledge of specifics.

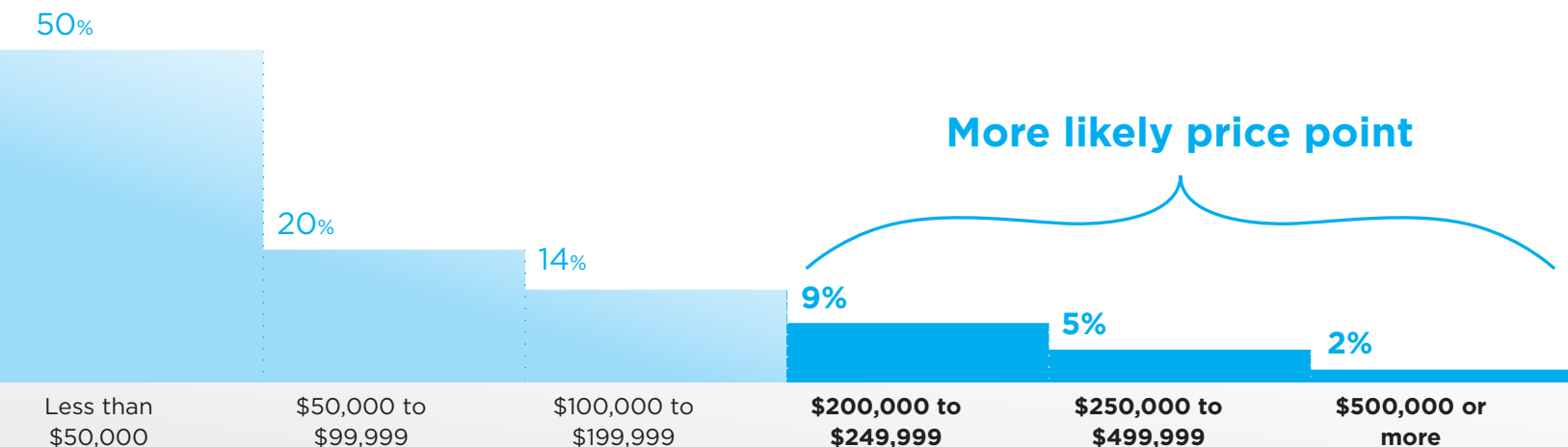
The majority of business decision makers said they were interested in solar, though the numbers were slightly lower than in our consumer poll: 52% were interested, with 31% seriously considering a purchase. Those serious about solar tend to own or work for larger companies (100+ employees) with multiple locations and revenue of \$5 million or more, and most of them are pursuing rooftop options.



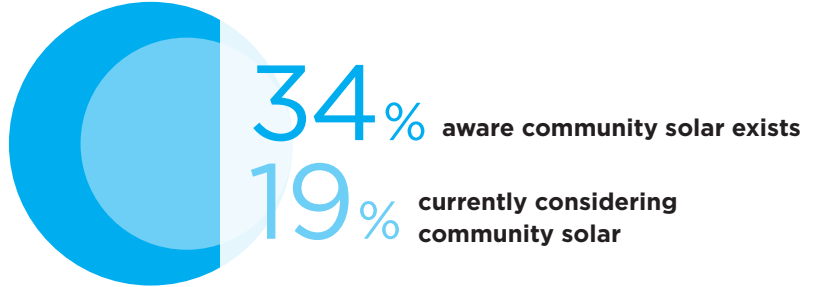
Some are also considering renewable energy certificates (23%), other non-solar options such as geothermal and wind (20%), and green power plans (20%).

But when we asked how much they'd expect to invest in a rooftop array in order to offset 100% of their company's energy use, fully half expected to spend \$50,000 or less, when the real cost would likely be several times that for a large facility.

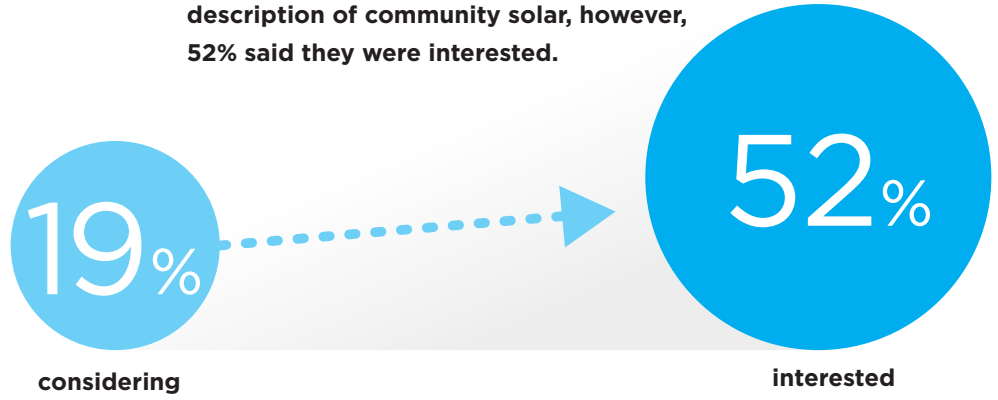
Thinking about your company's primary location, how much would you expect to invest to supply or offset 100% of your company's energy use?



And like consumers, few business decision makers are even aware that community solar exists (34%). Only 19% said they were currently considering it.



After we showed them a detailed description of community solar, however, 52% said they were interested.



Their take after seeing detailed information?

43%

said they were likely to choose a lease

44%

said they were likely to choose a block subscription

We showed respondents descriptions of potential lease and subscription models specifically designed for businesses.

Community Solar Panel Lease

SOLAR PANEL LEASE

As a participant in a community solar panel lease program, you lease individual solar panels from a large solar array in your community for a period of 25 years. Your monthly electric bill will indicate how much electricity your panels generate each month and reflect a credit for that electricity.

Your cost: \$695 per panel. This is an up-front, one-time payment.

Your bill credit: About \$45 per panel per year (\$3.75 per panel per month).

The payback period for your initial investment will be approximately 15 years.

Example 1: Convenience Store

A typical convenience store would need to install about 150 panels at a cost of approximately \$100,000 to generate 50% of its energy use. That same business could lease 150 panels from a community solar program for roughly the same up-front costs, but without the hassle of installing panels directly on their property and no ongoing maintenance costs.

Example 2: Office building

A 25,000-square-foot office building would need to install about 500 panels at a cost of approximately \$250,000 to generate 50% of its energy use. That same building could lease 500 panels from a community solar project for roughly the same up-front costs, but without the hassle of installing panels directly on their property and no ongoing maintenance costs.

Gain a sustainable advantage



Community Solar Block Subscription Rate

SOLAR SUBSCRIPTION RATE

With a community solar subscription rate model, your company can subscribe to 100 kWh "blocks" of solar energy produced from a community solar array in your area. The rate your company pays for the blocks of electricity will (initially) be two cents higher per kWh than your company pays now, but your company locks in that rate – it will never increase – for the duration of your company's subscription (your company can choose a duration of up to 25 years).

Example 1: Convenience Store

For a subscription to cover 50% of the average store's energy use, a retailer would need to subscribe to about 40 blocks. Here's how the numbers work out:

Subscribed blocks: 40

Current rate per kWh: \$0.11

Locked-in rate for subscribed blocks: \$0.13

Approximate increase in electric bill: \$80/month

Example 2: Office Building

For a subscription to cover 50% of the average office building's energy use, the owner/occupant would need to subscribe to about 140 blocks. Here's how the numbers work out:

Subscribed blocks: 140

Current rate per kWh: \$0.11

Locked-in rate for subscribed blocks: \$0.13

Approximate increase in electric bill: \$280/month

The benefit of this model is that the average rate for U.S. commercial electricity has risen by 3% to 7% since 2010. If that upward trend continues (as many predict it will), your locked-in rate means you'll pay less than the conventional rate for your subscribed blocks within a few years.

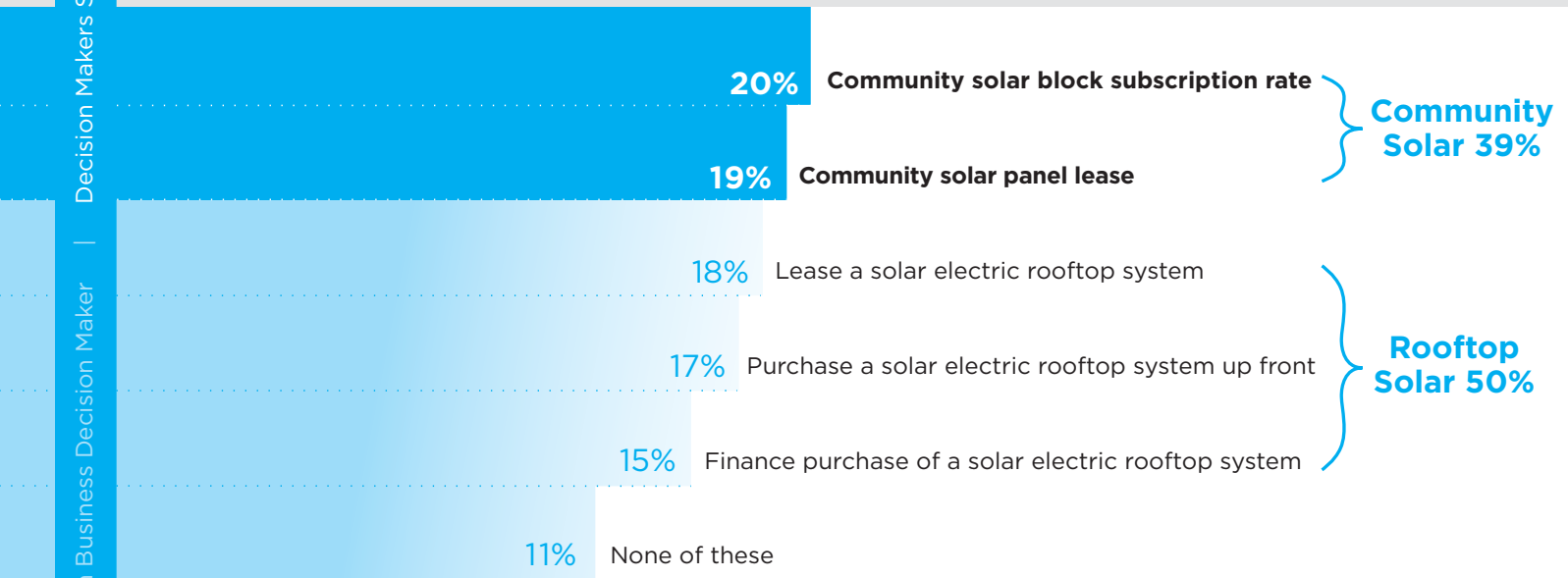
Note that you will be charged the conventional rate for any electricity use that is not covered by your subscription (about half your usage in the above examples). You are also free to drop out of the program at any time, at no cost.

Gain a sustainable advantage



But here's where business owners differ from average consumers. After sharing details on all available models (community and rooftop), we forced respondents to choose a single option for solar at the end of the study. Half elected to pursue rooftop, with 20% opting for a community solar block subscription, 19% choosing a community solar panel lease, and 11% choosing "none of these."

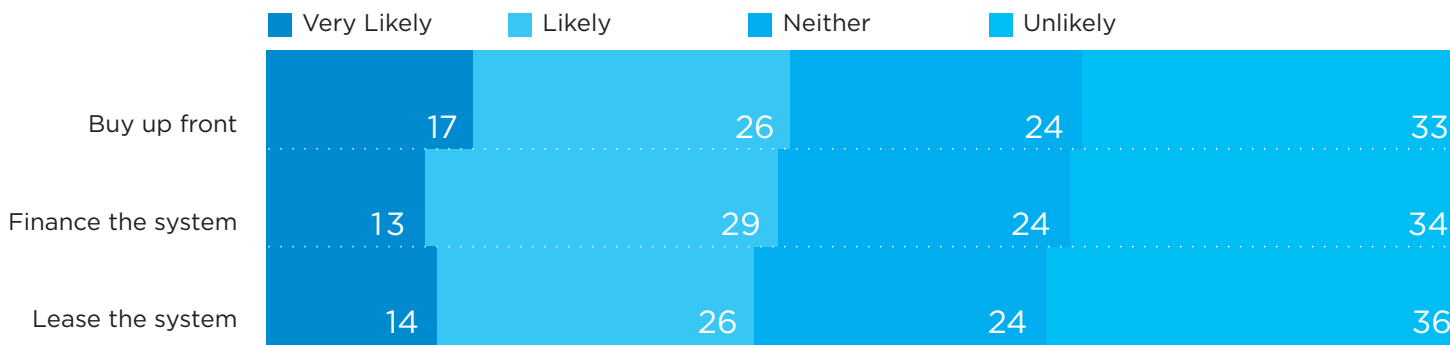
Please select which model your company would be most likely to consider in the next five years.



Business decision makers are a rooftop crowd

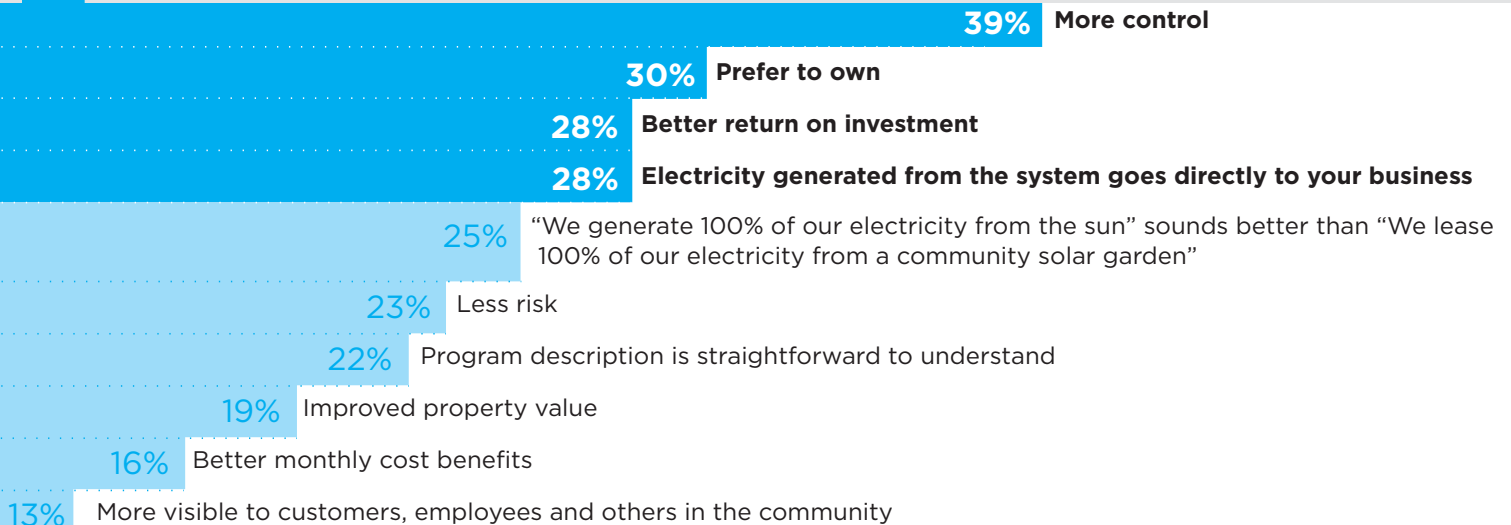
After exposure to detailed cost and financing information for both purchasing and leasing options, respondents' interest in pursuing rooftop options actually increased, with 63% (net) saying they'd be likely or very likely to purchase/lease a system within the next five years.

Your typical 3,000-square-foot convenience store would need to invest over \$100,000 to generate 50% of their electricity from solar, and a 25,000-square-foot office building would need to invest over \$250,000 to do the same. How likely is your company to purchase or lease a solar PV system in one of the following ways in the next 5 years?



It's likely that the same personality traits that lead people to own or manage businesses lead them to want a strong ownership stake in whatever they pursue - in this case, solar. We asked the 50% who preferred rooftop to tell us why, and three of their top four answers were related to control.

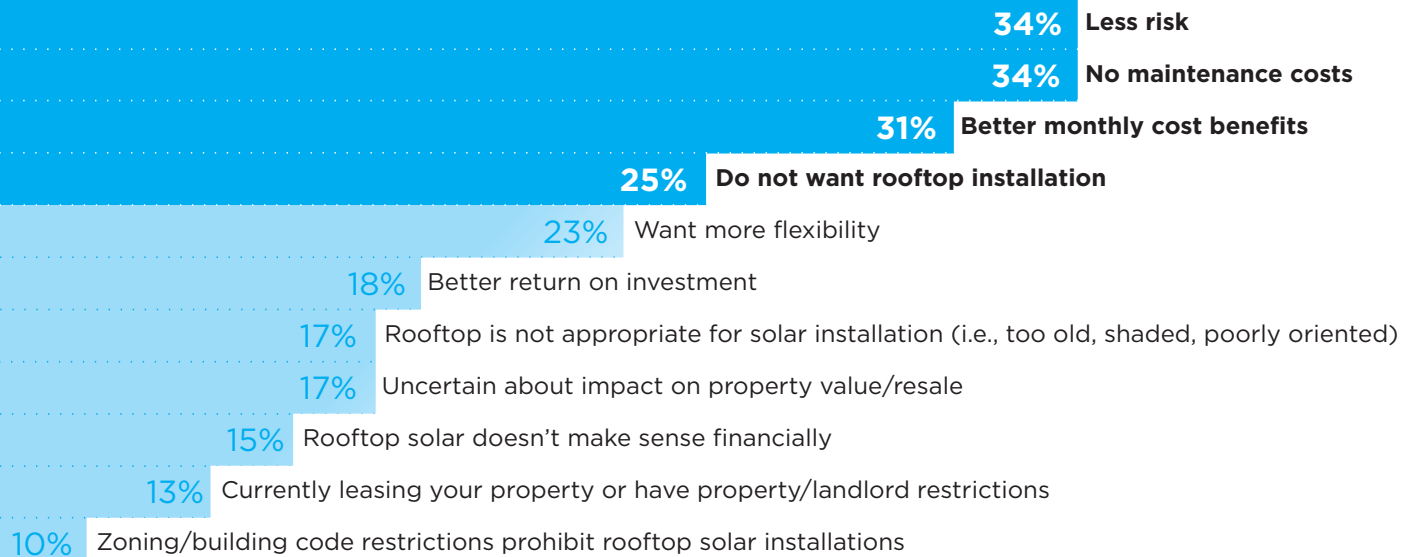
Why do you prefer rooftop solar options instead of community solar options for your company?



Community solar answers a need – for some

Despite the lean toward rooftop, there's definitely room for commercial community solar as well – with a specific target audience in mind. Those preferring community solar options over rooftop (39%) cited these reasons, which were predominantly about lowering risk and cost:

Why do you prefer community solar options instead of rooftop solar options for your company?



So it's clear that community solar fills a need for a very specific audience.



Profiling the Target Commercial Audiences for Community Solar

Meet the community solar commercial lease target

The target business audience for a community solar panel lease is very similar to the audience for rooftop, with one critical difference: **although they typically own their buildings, aversion to risk and maintenance costs outweighs the need for control.**

Here's what the target profile looks like

- *Younger executives (CEOs/CFOs/COOs 18-44 years old)*
- *Small to mid-size companies (revenue of less than \$10 million; the majority have fewer than 10 employees)*
- *Own their buildings and operate in a single location*
- *More likely than average to be located in the Midwest*
- *More likely than average to be in business services (27% vs. 21%), retail (25% vs. 19%) or technology (15% vs. 10%)*

What does this audience care about most?

- **Reducing energy costs.** The bottom line is key.
- **Being a better corporate citizen.** They feel a sense of responsibility to do the right thing, and they report undertaking at least five sustainable corporate initiatives.
- **Lowering risk.** They don't want the hassle of maintenance or worrying about variable power output.
- **Sponsorship by a reputable solar company working in partnership with their utility.** Visibility of the panels, however, isn't something the lease target is willing to pay a premium for.



Meet the community solar commercial block subscription target

The target business audience for a community solar block subscription has a unique profile – this is where community solar meets a very specific niche need for those who don't own their buildings outright.

Here's what the target profile looks like

- *Older owners/partners (at least 45 years old)*
- *Small companies (1-9 employees, revenue less than \$5 million)*
- *Lease their buildings*
- *Located in the Midwest or Northeast*
- *More likely than average to be in business services (20% vs. 13%), manufacturing (18% vs. 13%) or technology (15% vs. 10%)*

What does this audience care about most?

- **Reducing energy costs.** The bottom line is the top driver.
- **Control and independence from their electric utility.**
- **No maintenance costs.** This target is also wary of the impact of rooftop solar on property values and resale values.
- **Sponsorship by their local utility.**
- **Visibility.** Unlike their potential lease counterparts, this group prefers a locally visible array.

The potential community solar block subscription target also reports a high number of corporate social responsibility activities (five or more).

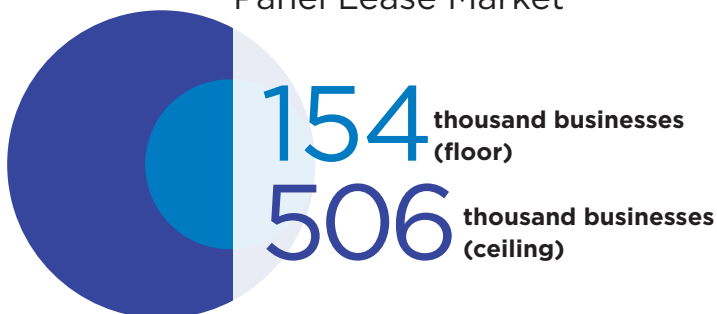


Estimating Market Potential

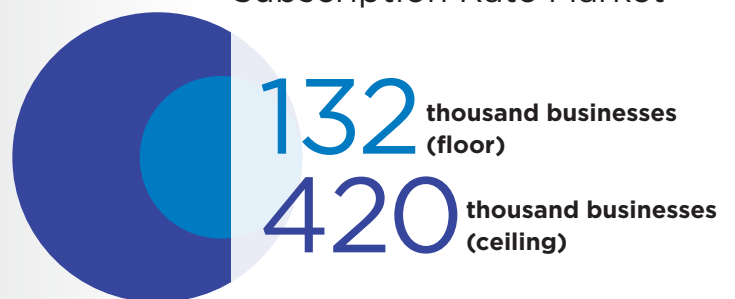
What is the market potential for commercial community solar? Based on our survey results, we've calculated the range for possible community solar market penetration. (To figure this up, we had decision makers choose which solar model they preferred and then we calculated how many of them said they were likely or very likely to pursue their preferred option.)

Estimating the Community Solar Panel Lease Market				
	% Very Likely	% Likely	Total	Businesses
High - Max Potential (Very likely + likely)	8.3%	37.5%	45.8%	506,000
Medium - Optimistic (½ very likely + ½ likely)	4.2%	18.8%	23%	253,000
Low - Realistic (½ very likely + ¼ likely)	4.2%	9.4%	13.6%	154,000
Estimating the Community Solar Subscription Rate Market				
	% Very Likely	% Likely	Total	Businesses
High - Max Potential (Very likely + likely)	7.8%	27.5%	35.3%	420,000
Medium - Optimistic (½ very likely + ½ likely)	3.9%	13.7%	17.6%	216,000
Low - Realistic (½ very likely + ¼ likely)	3.9%	6.9%	10.8%	132,000

Panel Lease Market



Subscription Rate Market



Marketing Community Solar to a
Commercial Audience

Business decision makers are investigating or actively pursuing a wide range of energy-saving options – offering a comprehensive portfolio is key to customer satisfaction. When it comes to solar, half of them are likely leaning toward rooftop, so it's critical to market community solar in the right way to the right audience.

Angles that get results

Financing. An offer of zero-down, low-interest financing caused nearly half of respondents to say they'd be more interested in a community solar panel lease program, increasing the population interested in this model to 60%.

Visibility. The potential community solar commercial audience cares about visibility of the array (51% preferred a “more visible” option, 38% “less visible”), but telling them that visibility may cost a premium changed some minds: 47% stuck with “more visible/higher cost” but 44% preferred “less visible/lower cost.”

Terminology. We asked business decision makers what they thought community solar should be called. “Community solar” (41%) effectively tied with “community shared solar” (40%), with “solar gardens” falling far down the list (8%). Also note that we used the terms “panel lease” and “block subscription” for the purposes of this survey, and the response was positive, but we're aware that other program descriptors are used in the marketplace, and we recommend further testing to determine the optimal language to use.

Recognition. Businesses interested in community solar want to be recognized for their participation (81% said so) – with the largest number choosing a window decal (47%).

Utility involvement. Of those interested in community solar, 45% preferred the array be sponsored by a reputable solar firm working in partnership with their utility; the second most common choice was utility sponsorship (34%). While some municipalities are taking the lead on community solar projects, we learned that government sponsorship was actually unpopular (3%).

Our marketing recommendations

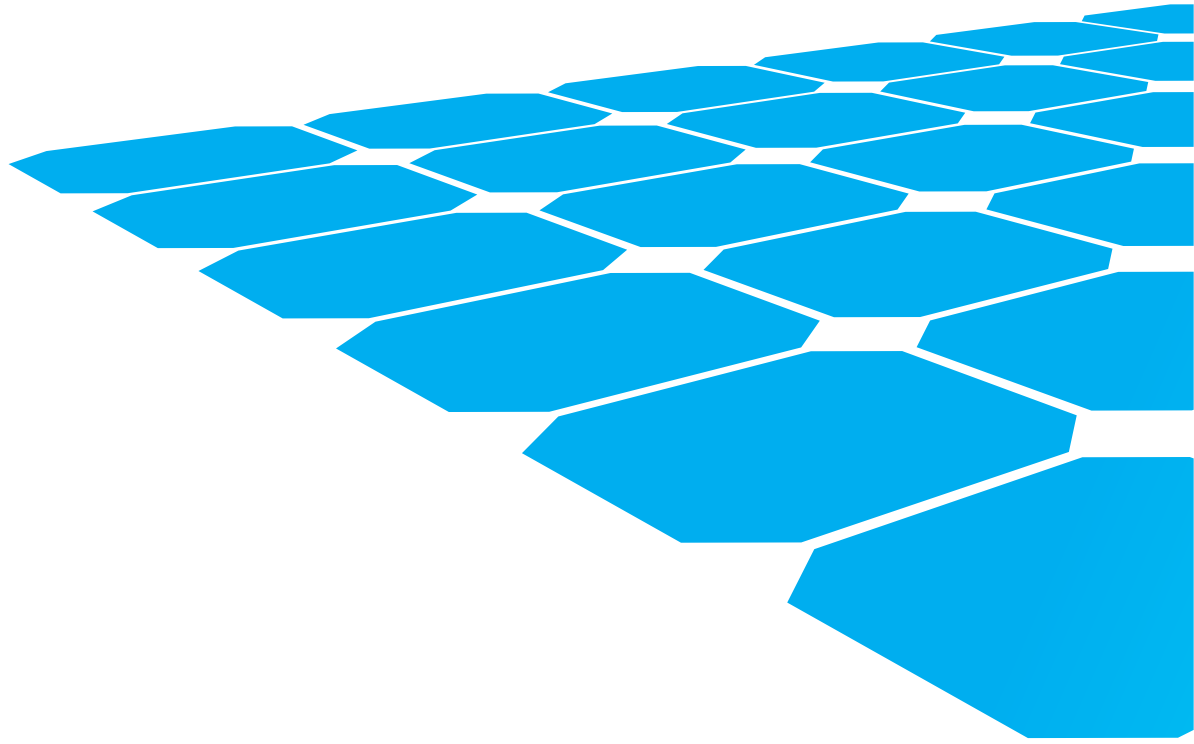
Offer a comprehensive portfolio of options. Companies are often pursuing more than one type of renewable energy option, so offering a varied selection can be key to establishing good customer relationships. There's a unique business profile for each type of solar model available - limiting your offerings means you'll drive some of your commercial energy customers to a different provider. (Those who want rooftop don't typically consider community solar an acceptable alternative.)

Emphasize reduced energy costs. This was by far the top cited driver for those interested in solar (66%), especially among small- to medium-sized companies. Energy independence/control was runner-up (39%) and especially appealed to executives. But the next three choices were all about social good: climate change (34%), pollution reduction (34%) and being a good corporate citizen (30%). Other options, including competitive differentiation, were chosen by 15% or fewer respondents.

Emphasize good corporate citizenship. Potential community solar participants reported high numbers of corporate social responsibility activities (five or more) compared to those who preferred rooftop (two to four, on average).

Offer attractive financing. Length of payback period (32%) and expense (31%) were cited as the top two reasons a company was not interested in solar. Offering zero-down, low-interest financing, on the other hand, converted the uninterested and increased interest for nearly half of respondents.

Use messaging that resonates with the identified targets. The commercial community solar panel lease target is similar to the rooftop target - typically a larger firm that owns its facilities - but is risk-averse and has concerns about ongoing maintenance costs. Also, this audience isn't necessarily looking to offset its entire bill. The commercial community solar block subscription target, on the other hand, is a smaller firm more likely than average to lease its facilities and likes a visible array located nearby, with utility sponsorship.

**SEPA**

The Smart Electric Power Alliance (SEPA) is an educational non-profit dedicated to helping utilities integrate solar power into their energy portfolios for the benefit of the utility, its customers and the public good. With more than 1,000 utility and solar industry members, SEPA provides unbiased utility solar market intelligence, up-to-date information about technologies and business models, and peer-to-peer interaction. From hosting national events to one-on-one counseling, SEPA helps utilities make smart solar decisions. For more information, visit www.SEPApower.org.

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